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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/840,075	05/06/2004	Brian Farkas	5051-636	7858

7590 04/09/2007  
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Raleigh, NC 27627

EXAMINER
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PELHAM, JOSEPH MOORE

ART UNIT	PAPER NUMBER
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3742

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/09/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/840,075

Applicant(s)

FARKAS ET AL.

Examiner

Joseph M. Pelham

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 37-40 is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-11, 13-23 and 25-36 is/are rejected.
- 7) ☒ Claim(s) 5, 12 and 24 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 May 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 5/6/04, 2/4/05
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_

***Claim Rejections - 35 USC § 102***

Claims 1, 7, 9-11, 13, 17, 20, 21, 23, 27, 28, and 30 are rejected under 35 U.S.C. 102(b) as being anticipated by US Pat. 3249741.

Referring to Figs. 1-3 and col. 2, line 11, through col. 3, line 50, US'741 discloses a conveyor oven comprising a first independently controlled heating zone (heater 25 and the far left of Fig. 1) with an IR heater whose wavelength, 30-400 microns, is longer than that in a second zone 32, so that the first zone effects surface browning (a "crust matrix") and the second interior heating, opposing heaters of the same kind on each side of the conveyor (3:41-48), and batch processing 17, 18. The steps of surface browning and the interior cooking would appear to inherently approximate a frying process. Regarding claims 9 and 21, both of the surface or interior heaters of US'741 has "a wavelength from between 0.4 microns to about 300 microns," since both overlap this range; surface heater emits IR radiation having wavelengths "between about 1.4 and 100 microns," since it overlaps this range.

***Claim Rejections - 35 USC § 103***

Claims 2-4, 6, 8, 14-16, 18, 19, 25, 26, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over US'741 in view of US Pat. 2340354.

The claims differ from US'741 only in calling for surface heaters to be closer to the conveyor than the interior heaters, equal power levels, or the surface heater heaving a higher power setting, quartz-halogen heaters, a surface heater intensity setting of 1.5 W/cm<sup>2</sup>, speed control, less than 60 sec. under the surface heater, and a intensity increase between the zones surpassing 2.5 W/cm<sup>2</sup> in less than 50 seconds. However, US'354 discloses an IR conveyor oven utilizing heaters whose distance from the conveyor is adjustable. It would have been obvious to place the surface heaters closer to the conveyor than the interior heaters, strictly in accord with the particular food item being cooked, and since US'354 teaches such adjustment to change the heater power intensity setting without having to adjust the power itself. Moreover, none of equal power levels, or the surface heater heaving a higher power setting, quartz-halogen heaters, a surface heater intensity setting of 1.5 W/cm<sup>2</sup>, speed control, less than 60 sec. under the surface heater, and a power intensity increase between the zones surpassing 2.5 W/cm<sup>2</sup> in less than 50 seconds, patentably distinguishes the claimed invention from the prior art. It would have been obvious to utilize equal power levels, or the surface heater heaving a higher power setting, a surface heater intensity setting of 1.5 W/cm<sup>2</sup>, speed control, less than 60 sec. under the surface heater, or a intensity increase between the zones surpassing 2.5 W/cm<sup>2</sup> in less than 50 seconds, all strictly in accord with known cooking requirements of particular foods; and quartz-halogen heaters are well known IR sources commended by their short warm up time.

Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over US'741 in view of US Pat. 6417494.

The claims differ from US'741 only in calling for a second IR profile having wavelengths in the range of 0.4 to 1.4 microns. US'494 discloses, at col. 2, lines 46-58, that interior heating is most efficiently obtained with wavelengths in the range of 0.4 to

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1.4 microns; hence it would have been obvious to implement this as the second IR profile of US'741, since more efficient and dedicated cooking of specifically the food interior would significantly enhance control.

Claims 31, 33, and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over US'741 in view of US Pat. 5431944.

The claims differ from US'944 only in calling for the cooking of "par-fried" (partially fried) potatoes, breaded meat, or baked goods. However, US'944 discloses cooking "par-fried" and breaded potatoes in any suitable oven, which immediately suggests any similarly par-fried foods. It would have been obvious to cook par-fried foods in the oven of US'741 since US'944 teaches such to have long been a conventional cooking method in commercial and other settings.

Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over US'741 in view of US Pat. 4756916.

The claim differs from US'741 only in calling for cooking a raw potato piece with oil on its surface. US'916 discloses, in the abstract, cooking a raw potato piece with oil on its surface in a conveyor oven. It would have been obvious to adopt the oil recipe of US'916 to avoid premature drying.

Claims 35 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over US'741 in view of US Pat. 4421015.

The claims differ from US'7841 only in calling for a defrosting stage of cooking utilizing a heater intensity of 0.1 to 1 W/cm<sup>2</sup>. US'015 discloses, in the abstract, a defrosting stage of cooking in a conveyor oven. Moreover, the intensity level is determined strictly in accord with known food compositions, and would be well within the competency of the artisan.

#### ***Allowable Subject Matter***

Claims 5, 12, and 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 37-40 are allowed.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph M. Pelham whose telephone number is 571-272-4786. The examiner can normally be reached on M-F 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans can be reached on 571-272-4777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

3/30/07

  
JOSEPH PELHAM  
PRIMARY EXAMINER